SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	**Multimedia and Advanced Web Page Development**
CODE NO. :	**CSD312** **SEMESTER:** **5**
PROGRAM:	**Computer Engineering Technology** **Computer Programmer Analyst**
AUTHOR:	**Fred Carella / Marcel VanLandeghem / Bazlur Rasheed**
DATE:	**Aug 2001** **PREVIOUS OUTLINE DATED:** **Jun 2000**
APPROVED:	

_____   _____
                              DEAN   **DATE**

TOTAL CREDITS:	**3**
PREREQUISITE(S):	**Completion of the** **Computer Engineering Technician or** **Computer Programmer Program** **or approval of the Dean**
HOURS/WEEK:	**4**

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I.   **COURSE DESCRIPTION:**

This course develops the ability to design and implement multimedia products and advanced web pages incorporating CGI scripting, JavaScript, style sheets and other web technologies. The ability to create multimedia content including still images, video, animation and audio and incorporate them in web pages is also developed. In addition, concepts relating to presentation design, computer hardware requirements, media capture, file formats, media storage and presentation hardware will be developed and used in the creation of the presentations.

II. A   **LEARNING OUTCOMES:**

Upon successful completion of this course, the student will demonstrate the ability to:

1.   Discuss multimedia design issues and implement presentations based on a design specification.

2.   Identify, compare and evaluate the hardware specifications outlined in the MPC specifications.

3.   Identify, compare and discuss the merits of various audio, video, and still image capture hardware.

4.   Discuss the merits of various file formats, their compression and encoding schemes and apply the correct format in the right circumstance.

5.   Create advanced web pages incorporating CGI scripting, JavaScript, style sheets and other web technologies.

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II. B   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Discuss multimedia design issues and implement presentations based on a design specification.

    Potential Elements of the Performance:
    - understand, discuss and perform the following design techniques, generate a design spec and create a multimedia presentation based the spec.
    - brainstorming
    - outlines
    - storyboards
    - scripts
    - building, testing, debugging.

2. Identify, compare and evaluate the hardware specifications outlined in the MPC specifications.

    Potential Elements of the Performance:
    - understand, discuss and define the following
    - Multimedia PC specifications MPC I, MPC II and MPC III
    - CDA (Redbook), Compact Disc Mode 1 and Mode 2 (form 1 and form 2)
    - mixed mode and multisession media as well as CD-ROM, CD-ROM XA, Photo CD, CD Recordable (part II), Video CD, Enhanced Music CD (CD Extra) and CD-i discs
    - MPEG I, & II, .AVI
    - video capture hardware/software
    - audio capture hardware/software

3. Identify, compare and discuss the merits of various audio, video, and still image capture hardware.

    Potential Elements of the Performance:
    - discuss and identify various media capture hardware and techniques
    - scanners
    - digital video cameras
    - video capture from camera/VCR

- Sound Blaster and Video Blaster hardware
- capture video, audio, still images and incorporate into presentations

4.   Discuss the merits of various file formats, their compression and encoding schemes and apply the correct format in the right circumstance.

Potential Elements of the Performance:
- discuss, define and create files incorporating
- PCM, ADPCM and other encoding techniques
- .wav (Microsoft WAVE files, RIFF)
- .ram Real Audio files
- real video, quick time, MPEG movies, MP3 audio
- jpeg, gif, png, tiff
- LZW, RLE, jpeg, mpeg, compression

5.   Create advanced web pages incorporating CGI scripting, JavaScript, style sheets and other web technologies.

Potential Elements of the Performance:
- review and create HTML encoded web pages
- discuss the merits of HTML
- create Dynamic HTML pages
- incorporate JavaScript into web pages
- incorporate web forms and CGI Scripting into web pages
- incorporate style sheets into web pages.

III.   TOPICS:

1.   Multimedia presentation design issues.

2.   Hardware requirements including the Multimedia PC specifications (MPC I, MPC II, MPC III)

3.   File formats and compression techniques for still images, moving images and sound.

4.   Multimedia development tools.

5.   Internet based presentations using the World Wide Web.

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IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Internet, online tutorial, instructor handouts.

V.   EVALUATION PROCESS/GRADING SYSTEM:

The mark for this course will be arrived at as follows:

3 Written Tests @ 15% each	45%
Lab Assignments and Quizzes	25%
Final Project	30%
Total	100%

The following semester grades will be assigned to students in post-secondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see *Policies & Procedures Manual – Deferred Grades and Make-up*).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

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Eligibility For X grades/Upgrading of Incompletes:

When a student's course work is incomplete or final grade is below 60%, there is the possibility of upgrading to a pass when a student meets all of the following criteria:

1.   The student's attendance has been satisfactory.
2.   An overall average of at least 50% has been achieved.
3.   The student has not had a failing grade in all of the theory tests taken.
4.   The student has made reasonable efforts to participate in class and complete assignments.

Note: **The opportunity for an X grade is usually reserved for those with extenuating circumstances.**   The nature of the upgrading requirements will be determined by the instructor and may involve one or more of the following: completion of existing labs and assignments, completion of additional assignments, re-testing on individual parts of the course or a comprehensive test on the entire course.

Assignments and Projects:

Required format for lab assignments and projects will be detailed by the instructor before labs and projects are assigned.

Attendance:

Absenteeism will affect a student's ability to succeed in this course. Absences due to medical or other unavoidable circumstances should be discussed with the instructor. There will be an attendance factor included in the lab evaluation.

VI.   **SPECIAL NOTES:**

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

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Retention of course outlines:
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities*. Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:
The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII.   PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII.   DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.